

Description of Additional Supplementary Files

File Name: Supplementary Data 1

Description: Sample information with AIRR-seq and Pacific BioScience sequencing details

File Name: Supplementary Data 2

Description: SV allele frequencies and number of samples with at least one SV allele

File Name: Supplementary Data 3

Description: IGK alleles identified in all individuals with PacBio sequencing (n = 177)

File Name: Supplementary Data 4

Description: IGL alleles identified in all individuals with PacBio sequencing (n = 177)

File Name: Supplementary Data 5

Description: Samples for which each allele of an IGKV proximal paralog was distinct from the sequence of each allele of the distal paralog

File Name: Supplementary Data 6

Description: Unmutated and mutated repertoire guQTL statistics from linear regression (Bonferroni corrections: IGK; $P < 3.7e-5$, IGL; $P < 1.9e-5$)

File Name: Supplementary Data 7

Description: Comparison of unmutated and mutated repertoire guQTL statistics from linear regression (Bonferroni corrections: IGK; $P < 3.7e-5$, IGL; $P < 1.9e-5$)

File Name: Supplementary Data 8

Description: Fisher exact test (one-sided) for enrichment of guQTLs in TFBS

File Name: Supplementary Data 9

Description: LD blocks in IGK and IGL

File Name: Supplementary Data 10

Description: Overlap of genes and guQTLs in LD blocks

File Name: Supplementary Data 11

Description: Fisher exact test (two-way) of allelic variation among individuals in genotype groups at lead guQTLs

File Name: Supplementary Data 12

Description: Unmutated and mutated repertoire CDR3 property QTL statistics (significant variants)